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ABSTRACT

This is a discussion on the role that cognitive and affective variables play in second language learning. The variables under consideration are: (1) intelligence; (2) language aptitude; (3) motivation; and (4) anxiety. Specifically, this report focuses on the importace of attitudinal and motivational factors in achievement. Research is reviewed which supports the contention that the attitudinal/motivational dimension, or integrative motivation, bears an important relationship to achievement in the second language as well as to behavior in the language classroom. The importance of such a motivational component seems to derive from the fact that language courses make affective demands on students because they require acquisition of material characteristic of other cultures, demands not made by other school subjects. It is suggested that educators concerned with communicative methodology consider the importance of attitudinal and motivational variables. (AM)

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COGNITIVE AND AFFECTIVE VARIABLES IN FOREIGN LANGUAGE ACQUISITION[1]

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Cognitive and Affective Variables in Foreign Language Acquisition

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My purpose today is to discuss four characteristics of students which seem to be involved in second language acquisition. Two of these are cognitive variables in that they refer to intellectual and verbal abilities which promote second language learning. One, intelligence, refers to a general class of abilities which accounts for differences in the extent to which individuals understand the nature of any task to be learned. The other, language aptitude, involves the specific capacity to learn languages, and is typically assessed in terms of verbal abilities and skill in the first language (cf., Carroll & Sapon, 1959). Although these two variables are conceptually similar and tend to correlate with each other, it has been demonstrated that they are relatively independent of each other in a factor analytic sense (Gardner & Lambert, 1965). Their role in the language learning process would appear to be that they facilitate the learning of the language material by permitting the student to capitalize on his language experiences.

The remaining two variables are classified as affective in that they involve non-intellectual variables which influence or direct the individual's behaviour in the language learning situation. The first, motivation, refers to the extent to which the individual works to acquire the second language because of a desire to learn it. This conceptualization of motivation

involves two aspects, effort plus desire, because both seem necessary to accurately reflect the true meaning of motivation. Effort alone does not of necessity imply motivation because many irrelevant individual characteristics (e.g., compulsiveness) or social presses (e.g., impending examinations) might produce effort which does not truly reflect motivation. Similarly, desire doesn't of necessity reflect motivation. If the desire is not linked with striving on the part of the organism to achieve the goal, the organism isn't truly motivated. The second affective component, situational anxiety, refers to fear aroused in specific situations involving the language. In the present situation, attention is focused on French classroom anxiety to emphasize the dread aroused in some students when called on in their French class. In other situations, however, it would be more meaningful to focus on French use anxiety, the anxiety some individuals experience when they feel they might be called upon to speak French. Motivation and French classroom anxiety have been shown to be virtually independent of each other and of language aptitude (Gardner & Smythe, 1976).

The research that I intend to focus on today is primarily concerned with the concept of motivation, though measures of language aptitude and anxiety were included, hence some discussion will be devoted to them. In these particular studies, indices of intelligence were not included, but nonetheless the role of this factor should not be ignored. The research program to be discussed derives from and extends that by Gardner and Lambert (1972). There, we demonstrated that two factors were associated with measures of achievement in a second language. First, language aptitude tended to be primarily related to second language skills stressed

in the classroom (i.e., vocabulary, and grammar). Second, an attitudinal/motivational dimension was mostly associated with communicational skills which could be strengthened outside the classroom (i.e., oral-aural skills).

Recent studies in this general area (Gardner & Smythe, 1975) have referred to this attitudinal/motivational dimension as an integrative motive. This label has been used to indicate that the configuration of attitudes and motivation seem to characterize a student who is learning the second language in order to permit him to interact and become friendlier with members of the other community. This interpretation is inferred from the types of variables which contribute substantial loadings on similar factors in factor analytic studies, viz., measures such as Interest in Foreign Languages, Attitudes toward French Canadians, Ratings of Integrativeness, Attitudes toward Learning French, Motivational Intensity, Desire to Learn French and Attitudes toward aspects of the Learning Situation like the French Course and the French Teacher. As the variable names suggest, such a dimension includes favourable attitudes toward the language community, the language, the learning situation and all foreign languages, expressed goals of language learning which stress closer interaction with the other community, and increased motivation, -- in short an Integratively oriented Motivation.

The importance of such a motivational component would seem to derive from what appears to be a little recognized fact that the foreign or second language course is patently different from any other curriculum topic. Other courses such as mathematics, history, anthropology, etc., all involve aspects (or perspectives) of the student's own culture. The student learns material which is a part of his own cultural heritage.

With foreign languages, however, the student learns material from another cultural community. Moreover, he must not simply learn about the material, he must actually incorporate it into his own behavioural repertoire. He must be able to use the language. French, or German, or Russian aren't simply different linguistic coding systems. They are representations, and strong ones, of these other cultural groups. The words, sounds, grammatical principles and the like that the teacher is trying to teach are more than aspects of a linguistic code; they are integral parts of another culture. As such, the student's feelings or attitudes toward the specific language group are bound to influence how successful he will be in incorporating aspects of that language. Other attitudes will be implicated also, but they all have in common that they involve attitude objects which are associated with the fact that the language is a representation of another cultural community.

Such considerations suggest other attitudes which might influence second language acquisition. Attitudes which reflect reactions to other groups in general such as Xenophilia, Ethnocentrism, Interest in Foreign Languages, etc., could be involved. Attitudes toward the specific language, learning it, speaking it, etc., could be implicated. Attitudes concerning goals for learning the language such as ratings of integrativeness which consider goals which involve interacting with the other culture, learning more about it, widening possible circles of friends and acquaintances, etc., could be involved. Attitudes towards aspects of the learning situation such as the course or the teacher similarly could be involved. All of these attitudes, and quite probably many others, could influence achievement in the second language because of its association with another cultural group.

The majority of such attitudes quite probably are developed and fostered in the home environment and reinforced by one's peers. But it seems equally probable that many of the attitudes become salient for the first time in the language class. Students may not have sericusly contemplated their attitudes toward the other language community, or their reactions to the language etc., especially in environments where the language is not clearly represented, until they are introduced to the language in their classrooms. The teacher and the methodology might consequently play a considerable role even in influencing student attitudes.

Recently, Gardner and Smythe (1976) presented data suggesting that attitudes play their major role in the process of learning a second language by providing support for the students' level of motivation. They demonstrated that measures of both motivation and various attitudes tended to correlate significantly with various indices of second language achievement, but that if the motivational component were partialled out of the attitude, the resulting correlation tended toward zero, while partialling the attitude out of the motivation did not materially influence the correlation. The implication of such findings is that motivation mediates any attitude/ behaviour association. The role of attitude is to support motivation, which in turn promotes second language acquisition.

In the language learning situation, then, if one's attitudes are favourable, other things being equal, the experiences with the language will be pleasant and motivation will be maintained or increased. If attitudes are negative, experiences with the language will be unpleasant, and motivation will wane. Obviously, however, the teacher and the methodology can enter into this chain of events. A capable, enthusiastic

teacher with an interesting methodology or pedagogical approach can positively influence initially favourable or unfavourable attitudes providing they are not rigidly fixed. Similarly, the poor teacher and/or the poor methodology can have a distinct negative effect. It is now commonly agreed that the student is not a tabula rasa. He brings to the classroom many expectations, abilities, personality traits, and attitudes. I am suggesting that we remember also that the language of instruction is also not a tabula rasa -- or affectively neutral code -- as far as many students are concerned. Teachers and material writers would do well to consider both aspects.

The importance of the attitudinal/motivational variables to second language acquisition can be demonstrated in three different areas, their relation to achievement in the second language, their relationship to the drop-out problem, and their association with behaviour in the language classroom. In each case, there is ample evidence to conclude that attitudes and motivation are important, thus suggesting their pervasive influence. What remains is to develop ways of capitalizing on this influence so that language learning can be facilitated.

Many studies have documented a relationship between attitudes, motivation, and second language achievement (Gardner & Lambert, 1959; 1972; Gardner & Smythe, 1975) and many other studies have demonstrated relationships between some attitudinal and/or motivational variables and indices of achievement (Burstall, 1975; Lukmani, 1972; and Spolsky, 1969). Recently, we have had the opportunity to assess the stability of a particular attitudinal/motivational configuration, the integrative motive, over 31 different samples of students drawn from seven regions in Canada and from five different age levels in school. This large scale study involved

factor analyses within each sample and the identification of the dimensions obtained. Obviously a number of dimensions were obtained, but one that was particularly stable across all samples was the Integrative Motive factor, which demonstrated high associations between the attitude and motivation measures. This factor, furthermore, received contributions from a self-report measure of the intention to continue studying French in 25 of the 31 samples showing its clear association with perseverance in language study. Moreover, in 24 of the 31 samples, indices of achievement contributed, at least minimally to this dimension. In short, the integrative motive plays a definite role in influencing both perseverance in language study and achievement in the language itself.

Another area in which the importance of attitudinal/motivational characteristics has been documented is in perseverance in language study. Bartley (1969, 1970) demonstrated that attitudinal variables differentiated between those who dropped out of foreign language study from those who stayed in more consistently than indices of language aptitude. Our own research has supported this finding, but we have extended this type of research slightly by determining the relative importance of attitudinal and motivational characteristics as well as other characteristics. One study will clarify the nature of this research.

In 1972-73, we conducted an investigation concerned with determining the relative importance of various factors in predicting who would and who would not drop out of French study. Subjects for this study were approximately 300 students in each of grades 9, 10, and 11 (i.e., 14 - 16 year olds). These students were tested on three occasions. In October, 1972, they completed the Modern Language Aptitude Test (Carroll & Sapon, 1959);

in November, they were administered the attitude/motivation battery; and in May, 1973, they answered the Canadian Achievement Test in French. In September, 1973, when the new school term began, we returned to the schools concerned and determined whether each student was registered in French for that year, whether he had dropped French, or whether he was nc longer in the school. Ignoring this last group, t-tests were computed between the stay-ins and drop-outs on each aptitude, attitude, motivation, and achievement subtest, and statistics (ω^2, or omega-squared) of the ability of each test to differentiate between the two groups were computed. Mean ω^2 were then computed for five subsets of measures, classified as follows:

Motivation. The three tests, Motivational Intensity (corresponding to the effort component), Desire to Learn French and Attitudes Toward Learning French (corresponding to the "want" component) formed the index of motivation.

Integrativeness. Three tests, Attitudes toward French Canadians, Attitudes toward the European French, and Ratings of Integrativeness were grouped to provide an index of interest in learning French for purposes of becoming psychologically closer to communities who speak French and who are positively evaluated by the student.

French Achievement. The five subtests of the Canadian Achievement Test in French provided an index of achievement in French.

Language Aptitude. The five subtests of the Modern Language Aptitude Tests were used to characterize language aptitude.

Anxiety. The single measure of French Classroom anxiety was used to assess the fear aroused in the language classroom situation.

The mean ω^2 for these five classes of variables were computed for each of the three grades. The results were clear in demonstrating that motivation was the single most consistent variable to differentiate between the two groups at each of the three grade levels. For the grade 9 sample, the relative contributions to prediction were motivation, integrativeness, anxiety, French achievement, and language aptitude. In this school system, the French course in grade 9 is the first time it is optional for students, the first time it is a graded subject, and the first time where students receive instruction for 40 minutes per day instead of 20 minutes per day. These results would suggest, therefore, that in the initial phases of language instruction, motivation and attitude differences are major determinants of perseverance. At the grade 10 level, the relative contributions came from motivation, French achievement, integrativeness, language aptitude and anxiety. This pattern results primarily because although integrativeness maintains its predictive capacity, French achievement considerably improves its capacity. That is, although the attitude variables maintain their importance in determining perseverance, French achievement becomes more so, but only slightly more important than integrativeness. Exactly the same pattern results in grade 11 except that the magnitude of the French achievement effect is again increased. The major generalization that seems warranted is that in the early stages of language learning, motivational and attitudinal components are the prime determinants of perseverance in language study. As students progress, however, the importance of French achievement increases, possibly because good grades become important as students near the end of their programs, hence poorer students will drop out in favour of other courses where they might achieve

better. Furthermore, there is already considerable selection based on attitudinal differences.

One further area where attitudinal/motivational characteristics can play an important role is that of classroom behaviour. If the previous explanation of the role of attitudes and motivation is correct, it would be expected that students with favourable attitudes and motivation would be more active and concerned in their language class than students with less favourable attitudes and motivation. Such an hypothesis was supported in two studies conducted by Gliksman (1976). In the latter, more complete study, two classes in each of three grades (9, 10, and 11) were investigated over the duration of their semester French class. In the first week of the class, students were administered the battery of attitude and motivation tests. On the basis of the combined standardized scores from six measures, Interest in Foreign Languages, Attitudes toward French Canadians, Ratings of Integrativeness, Attitudes toward Learning French, Motivational Intensity and Desire to Learn French, students were classified by means of a median split as integratively motivated or non-integratively motivated. In six sessions throughout the semester all students were observed in class by two raters and records were kept on the number of times each student volunteered to answer, and the number of correct answers each student gave. In addition a subjective rating was made of each student's apparent degree of interest and satisfaction with that class. The data were grouped into three sets of two sessions each, providing observations for roughly the beginning, middle, and end of the school term. Analyses of these data indicated that in each set of sessions, the integratively motivated students volunteered more, gave more correct answers, and were rated as more interested than non-integratively motivated students.

Such results suggest that attitudinal/motivational characteristics of the students are largely responsible for their behaviour in the language class. Obviously the teachers of these students were attuned to individual variations in the students and were attempting to get them all to interact in the classroom. It is consequently important to consider the implications of these results. Attitudes and motivation assessed at the beginning of the school term continued to account for a student's behaviour, at least to some extent, even at the end of the term.

In this paper, I have attempted to discuss briefly the role that cognitive and affective variables play in foreign language learning. The bulk of the research described focused on affective variables, particularly attitudinal and motivational ones because these appear to be important in foreign language learning and relevant to the theme of this conference, viz., communicative methodology. I have not attempted to suggest how methods might be modified to take into account the role played by attitudinal and motivational characteristics simply because I do not have the requisite training or experience. I believe, however, that the research material I have presented (and much that I haven't) indicates that foreign language courses make affective demands on students because they require acquisition of material characteristic of other cultures, and that such demands are not made by other school subjects. As a result, attitudinal and motivational variables play a dominant role in foreign language learning, and it would seem that by considering this approach, educators concerned with communicative methodology might produce the pedagogical breakthrough that the language teaching profession seeks.

References

Bartley, D. E. A pilot study of aptitude and attitude factors in language dropout. California Journal of Educational Research, 1969, 20, 48-55.

Bartley, D. E. The importance of the attitude factor in language dropout: A preliminary investigation of group and sex differences. Foreign Language Annals, 1970, 3, 383-393.

Burstall, C. French in the primary school: The British experiment. Canadian Modern Language Review, 1975, 31, 388-402.

Carroll, J. B., & Sapon, S. M. Modern Language Aptitude Test (MLAT) Manual. New York: Psychological Corporation, 1959.

Gardner, R. C., & Lambert, W. E. Motivational variables in second language acquisition. Canadian Journal of Psychology, 1959, 13, 266-272.

Gardner, R. C., & Lambert, W. E. Language aptitude, intelligence, and second-language achievement. Journal of Educational Psychology, 1965, 56, 191-199.

Gardner, R. C., & Lambert, W. E. Attitudes and motivation in second-language learning. Rowley, Mass.: Newbury House, 1972.

Gardner, R. C., & Smythe, P. C. Second language acquisition: A social psychological approach. Research Bulletin No. 332, Department of Psychology, University of Western Ontario, 1975.

Gardner, R. C., & Smythe, P. C. The role of attitudes in acquiring the language of another ethnic group. Research Bulletin No. 7, Language Research Group, Department of Psychology, University of Western Ontario, 1976.

Gliksman, L. Second language acquisition: The effects of student attitudes on classroom behaviour. Unpublished MA Thesis, University of Western Ontario, 1976.

Lukmani, Y. M. Motivation to learn and language proficiency. Language Learning, 1972, 22, 261-273.

Spolsky, B. Attitudinal aspects of second language learning. Language Learning, 1969, 19, 271-283.